

Working Papers in Economic History

October 2017

WP 17-07

American divergence. Lost decades and Emancipation collapse in Latin American and the Caribbean 1820-1870

Giovanni Federico and Antonio Tena-Junguito

Abstract

The period 1820-1870, commonly referred to as the 'lost decades', is widely regarded as the key moment in the opening of the gap between Latin America and the United States. We test this statement with a new export series and some tentative estimates of GDP trends. The overall performance of Latin American countries was quite good, although not outstanding. Mexico was hit by a foreign policy crisis, but the only real losers were the British and French colonies in the Caribbean. The emancipation of slaves caused a collapse in their exports, favoring other tropical countries, including Cuba and Brazil. Further South, independent countries such as Argentina and Chile increased their share of world trade. Overall, most of the divergence during the period 1820-1870 in the Americas was between tropical countries rather than between Latin America and North America.

Keywords: International Trade, Latin America and the Caribbean, Early Nineteenth century, Independence and Emancipation.

JEL Classification: F14, N10

Antonio Tena-Junguito: Departamento de Ciencias Sociales, and Researcher at Instituto Figuerola, Universidad Carlos III, Calle Madrid, 135, 28903 Getafe, Spain.
E-mail: antonio.tena@uc3m.es
http://portal.uc3m.es/portal/page/portal/dpto_ciencias_sociales/profesorado/antonio_tena

Giovanni Federico: Department of Economics and Management Università di Pisa.
Via Cosimo Ridolfi, 10, Pisa PI (Italy).
E-mail: Giovanni.Federico@unipi.it

UNIVERSIDAD CARLOS III DE MADRID • c/ Madrid 126 • 28903 Getafe (Spain) • Tel: (34) 91 624 97 97
Site: http://portal.uc3m.es/portal/page/portal/instituto_figuerola/home/publications/working_papers

Publisher:

Carlos III University of Madrid. Figuerola Institute of Social Sciences History
www.uc3m.es/if

Series:

Working Papers in Economic History
ISSN: 2341-2542

Electronic version of these working paper series available on:

<http://hdl.handle.net/10016/16>



This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

American divergence. Lost decades and Emancipation collapse in Latin American and the Caribbean 1820-1870.

Giovanni Federico and Antonio Tena-Junguito

Abstract

The period 1820-1870, commonly referred to as the 'lost decades', is widely regarded as the key moment in the opening of the gap between Latin America and the United States. We test this statement with a new export series and some tentative estimates of GDP trends. The overall performance of Latin American countries was quite good, although not outstanding. Mexico was hit by a foreign policy crisis, but the only real losers were the British and French colonies in the Caribbean. The emancipation of slaves caused a collapse in their exports, favoring other tropical countries, including Cuba and Brazil. Further South, independent countries such as Argentina and Chile increased their share of world trade. Overall, most of the divergence during the period 1820-1870 in the Americas was between tropical countries rather than between Latin America and North America.

Keywords: International Trade, Growth, Latin America and the Caribbean, Early Nineteenth century, Independence and Emancipation.

JEL Classification: F14, N10

Antonio Tena-Junguito: Departamento de Ciencias Sociales, and Researcher at Instituto Figuerola, Universidad Carlos III, Calle Madrid, 126, 28903 Getafe, Spain.
E- mail: antonio.tena@uc3m.es
http://portal.uc3m.es/portal/page/portal/dpto_ciencias_sociales/profesorado/antonio_tena

Giovanni Federico: Department of Economics and Management Università di Pisa.
Via Cosimo Ridolfi, 10, Pisa PI (Italy).
E- mail: Giovanni.Federico@unipi.it

American divergence. Lost decades and Emancipation collapse in Latin America and the Caribbean 1820-1870.¹

Abstract

The period 1820-1870, commonly referred to as the 'lost decades', is widely regarded as the key moment in the opening of the gap between Latin America and the United States. We test this statement with a new export series and some tentative estimates of GDP trends. The overall performance of Latin American countries was quite good, although not outstanding. Mexico was hit by a foreign policy crisis, but the only real losers were the British and French colonies in the Caribbean. The emancipation of slaves caused a collapse in their exports, favoring other tropical countries, including Cuba and Brazil. Further South, independent countries such as Argentina and Chile increased their share of world trade. Overall, most of the divergence during the period 1820-1870 in the Americas was between tropical countries rather than between Latin America and North America.

1. Introduction

The Mexican president, Porfirio Diaz, once said 'Poor Mexico, so far from God and so close to the United States'. In economic history, this statement holds true for the whole continent South of the Rio Grande. Its economic performance is routinely compared with the American one and the results are not flattering. On the eve of World War One, the average GDP per capita of Latin America was less than a third of the American one (Maddison 2014). Yet, in 1500 Mexico and Peru had undoubtedly been richer than the United States. The timing of this 'reversal of fortunes' is still uncertain. Acemoglu et al (2002 p.1258) conclude "that the reversal in relative incomes took place during the late eighteenth and early nineteenth centuries and it was linked to industrialization", but this dating is not unanimously shared. The recent estimates by Allen et al (2012) and Arroyo Abad et al (2012, Figure 1) feature a sizeable gap in real wages between North and South America since the late 16th century and push the start of the divergence further back in time: the United States was much richer than Peru throughout the 18th century,

¹ Funded by European Research Council Advanced Research. Grant Number: n.230484, years 2009–13 and the Spanish Ministry of Science and Innovation. Grant Number: ECO2011-25713 and ECO2014-58784-P.

almost as rich as Mexico around 1720 and about a quarter richer around 1780. On the contrary, according to the avowedly optimistic view of Dobado (2015), levels of consumption in Latin America were close to North American ones (and higher than most European ones) in the early 19th century. By definition, the larger the gap in GDP per capita in 1800, the better the 19th century performance relative to the United States.

This conventional wisdom is still largely based on anecdotal evidence and on a simple inference from the very troubled political history of the continent. In fact, in spite of noteworthy recent progress, hard data on Latin American countries are still in short supply. Data on GDP per capita are available for only some countries, sometimes only for a few benchmark years, and many of them are only guesstimates. Most authors have used exports per capita as a proxy for GDP, under the assumption that in the early 19th century exports to the industrializing core were the main or sole source of growth for the periphery (Bates et al 2007, Prados de la Escosura 2009, Bulmer Thomas 2003 and 2012, Bertola and Ocampo 2014). In this paper, we follow this tradition, relying on our new estimate of world trade since 1800 (Federico and Tena 2016). We are able to make three new specific contributions. First, we consider all polities in the Americas, including the Caribbean, which have so far only been the subject of a parallel (and similarly pessimistic) literature. Second, we frame the performance of exports from American countries in the growth of world trade during the first globalization (Federico and Tena 2017 a)

). Third, we estimate, albeit crudely, trends in openness, which we use to produce (tentative) series of GDP for all American polities.

After a survey of the literature on the ‘lost decades’ (Section Two), we present the available data on GDP (Section Three) and trade (Section Four). The latter data suggest a division of South American polities into three groups, which we deal with in more detail in the next Sections. Section Five focuses on the performance of the major temperate independent countries, which ranged from the decent (Mexico) to the outstanding but highly fragile (Peru). Section Six outlines the massive changes in the world market for tropical products, which featured the rise of Spanish colonies (Cuba and Puerto Rico) and Brazil, as well as of non-American competitors, and the decline of the once-domineering British and French colonies. In Section Seven we discuss how much this latter depended on the effects of slave emancipation. Section Eight presents our estimates of openness and GDP and Section Nine concludes.

2. The literature on the lost decades: Independence and Emancipation

The pessimistic view suggests three different, but surely not mutually exclusive, mechanisms to explain the poor performance of the newly independent Latin American countries.

First, political fragmentation caused South America to lose all the scale advantages Spanish colonial empire had offered (Bates et al 2007). The common currency and legal system could have helped the development of a single market (Irigoin 2003), and indeed there is evidence of a modest convergence of prices within some viceroyalties, but trade between them was still limited (Gallo and Newland 2004). In contrast, independence brought national currencies, with different (and often unsound) monetary policies and, in most cases, also protectionism. All the new states increased duties to raise revenue, and high protection became a persistent feature of Latin American history (Coatsworth and Williamson 2004).²

Second, the Spanish (and, to some extent, Portuguese) rule had left extractive institutions. Spain extracted huge revenues from the empire, the colonies were forbidden from trading with foreign countries and trade with Spain was heavily regulated, the colonial society was highly hierarchical, the Church enjoyed a privileged status, and property rights on land were poorly defined and insecure (Coatsworth 1997, 2006, 2008 Mahoney 2010). After independence, trade was liberalized, but other extractive institutions remained, and the power of the élite grew, unconstrained by the Spanish crown (Coatsworth 1998). In a series of celebrated papers, Engermann and Sokoloff (1997, 2002, 2005 and 2011) have argued that land concentration and the ensuing concentration of local power reduced investments in public goods, such as education and infrastructure, which were critical for long-run sustained growth.

The most common explanation of the divergence, however, points to the dysfunctional politics of the newly independent countries: “In the half century following independence the presence of widespread political instability and violence distinguished much of Latin America, especially Spanish America, from the United States” (North et al. 2000, p.28). They were plagued by constant political turmoil, which often erupted in civil and foreign wars. Spain made steady efforts to reconquer its colonies until well into the

² Duties on British cotton goods from the principal Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay and Venezuela) were as high as 68% in 1846 and halved to 32% in 1863 (Tena-Junguito et al. 2012).

1830s and other European powers enforced blockades and military interventions to defend their markets and their geostrategic influence. Its location and size made Mexico particularly vulnerable. It lost Texas in 1836 and then half of its remaining territory in 1846-1848 to the United States and, on top of this, was twice invaded by the French, in the so-called Pastry War of 1838-1839 and again in 1861-1867. But many other countries were involved in foreign wars involving post-independence borders: Centeno (1997 Tab 1 and 2) lists 10 conflicts for Argentina, 6 for Brazil, 5 for Uruguay and Mexico, 4 for Chile and 3 for Colombia. Moreover, domestic political violence is deemed largely a colonial legacy: social groups and regions within each state strove for power in order to defend or expand their privileges (North et al 2000). Wars imposed a heavy toll in human lives and discouraged foreign and domestic investment, harming growth. Furthermore, they were expensive: between 1822 and 1860, military expenditures averaged between 50 to 77 percent of total budgets in Latin America (Centeno 1997, Tab.2 and Halperin 2008/1969 pp.136-138). The situation began to improve in the 1860s. In most countries, civil wars had ended and liberal political forces had taken office, abolishing most of the “ancient regime” rules affecting land and internal customs but also implementing modern commercial and civil codes (Stein and Stein 1970).

This pessimistic view has not gone unchallenged. Grafe and Irigoin (2006, 2008) and Irigoin (2015) have questioned the traditional view of the Spanish empire as extractive. Dye (2006) observes that the institutional framework of post-independence countries was complex and not uniformly bleak. Chile combined a prosperous economy with a stable government after Independence (see Rector 1986 and Salazar and Pinto 2003). Argentina experienced a soft institutional transition as the free trade interests in Buenos Aires easily overcame the opposition from landowners from the inland states (Amaral 1993). In a more general vein, Llopis and Marichal (2009, p.12) point out that Latin American countries outperformed their former colonial masters, Spain and Portugal in the early 19th century. The most consistent critic of the pessimistic view is Prados de la Escosura (Prados de la Escosura and Amaral 1993, Prados de la Escosura 2009). He admits that the end of transfers to Spain did not compensate for the losses from market fragmentation and from the post-independence political turmoil, but he argues that on balance the new countries gained thanks to the new opportunities for exports to Europe after the liberalization of trade. Other authors are more cautious, suggesting that the positive effect of exports was not large enough to translate into sustained growth on a continental scale and that growth

was concentrated in the coastal regions (Bulmer-Thomas 2003), which had easier access to foreign markets (Bertola and Ocampo 2014 pp. 75-79).

This literature ignores the Caribbean, which is the subject of a parallel and similarly pessimistic narrative (Bulmer Thomas 2012). Their poor performance cannot be explained by political turmoil, as all islands but Hispaniola (Haiti and Dominican Republic) remained European colonies throughout the period. However, most scholars point to the abolition of slavery in the 1830s and 1840s as a major shock that these economies did not overcome until the end of the 19th century. The traditional interpretation, as defined by Williams (1944), considered abolition an unavoidable consequence of the irreversible economic decline of the plantation system, but this view is no longer accepted. Drescher (1977, 1999) has argued that the plantation system was as efficient in the Caribbean as in the Southern United States (Fogel and Engerman 1973, Fogel 1989). Abolition was ‘economic suicide’, an ethically motivated political decision, which disrupted the system and caused a collapse in production and exports.

3. Measuring the performance of the Americas: GDP and wages

Table 1 reports the data on GDP per capita at constant prices for American polities in 1800, 1820 and 1870, and the corresponding rates of change according to Maddison and the two main comparative studies on Latin American polities during the ‘lost decades.’

Table 1
GDP per capita and growth (1990 PPP \$) in the Americas

	Maddison				Prados de la Escosura			Bertola and Ocampo		
	1800	1820	1870	rate	1820	1870	rate	1820	1870	rate
Canada		904	1695	1.26						
USA	1296	1361	2445	1.17	1257	2445	1.33			
Argentina	931	998	1468	0.77	1249	1837	0.77	998	1468	0.77
Brazil	683	683	713	0.09	652	680	0.08	597	694	0.3
Chile	626	605	1290	1.51	607	1295	1.52	710	1320	1.24
Colombia	591	533	676	0.48	423	539	0.48	607	676	0.22
Cuba	503	644	927	0.73	583	838	0.73	695	1065	0.85
Mexico	836	627	651	0.08	695	720	0.07	733	651	-0.24
Uruguay	1088	1165	2181	1.25	1004	1880	1.25			
Venezuela	415	375	570	0.84	347	529	0.84	460	570	0.43
Jamaica		701	530	-0.56						
8 core countries		639	794	0.43						
15 L. America		667	674	0.02						
21 Caribbean		636	549	-0.3						
L. America		628	776	0.42	648	813	0.45	684	772	0.24
World		712	884	0.43						

Sources: Maddison (2014) ; Prados de la Escosura (2009 Tab. 6); Bertola and Ocampo (2014) Tab A.1 and 2.4

The initial GDP figures tally well with the view by Allen et al (2012) and Arroyo Abad and Van Zanden (2012) on the size of income gaps at the end of the colonial period.³ Subsequent changes, in spite of the differences among estimates, are broadly consistent with the conventional wisdom. They do show a substantial variance in rates among countries. Chile and Uruguay matched the growth of the United States, but the performance of the two largest economies of the continent was disappointing, to say the least. Mexican income stagnated according to Cardenas (1997) and Salvucci (1993) and declined according to Coatsworth (1978, 2005). The rates for the Caribbean, if cumulated over fifty years, imply a fall of 15% in GDP for the whole area and of 30% in Jamaica alone.

Recent work suggests that this pessimistic view of the economic performance of the Americas should be re-considered. Lindert and Williamson (2016) estimate that the GDP per capita of the United States was higher and grew (slightly) faster before the Civil War than suggested by the standard estimates (Table 1).⁴ GDP per capita declined over the whole period 1820-1870 in Venezuela (De Corso), but grew quite fast in Brazil (Tombolo 2013), Chile (Braun et al. 2009) and Peru (Seminario 2015).⁵ Summing up, we have series of GDP per capita at constant prices for five polities only, which accounted for 65% of the total population of the Americas (but only 40% of the population of Latin America).⁶

Some authors have suggested using real wages as a proxy for GDP. This approach is correct only under strict conditions (Broadberry et al 2015) and, regardless, the results for Mexico City (Challú and Gomez-Galvariato 2015) and Lima (Arroyo Abad, 2014) are inconclusive. Real wages of unskilled workers underwent serious fluctuations without any long-term trend. In both countries, wages hit a trough during

³Arroyo Abad and Van Zanden (2014) suggest a slightly lower figure for Mexico (813 dollars) and put forward an estimate for Peru (665 dollars) in 1800.

⁴ They estimate the rate of change as 1.4% in 1800-1860 (including the recovery from the ravages of the Independence war) -0.3% in 1860-1870 and 1.16% over the whole period 1800-1870. The figures for GDP in 1990 Geary-Khamis dollars (1930 in 1800, 3250 in 1860 and 3100 in 1870) can be obtained by multiplying the British data by the authors' estimates of the difference between the two countries.

⁵ For the rates, see Appendix Table 1. GDP per capita may have also increased in Bolivia from 1846 to 1890 (Herranz Loncan and Peres-Cajias 2016 App.1).

⁶ Bulmer Thomas (2012 On line Appendix) reports series of GDP per capita at current prices for three additional countries, Argentina, Colombia and Cuba.

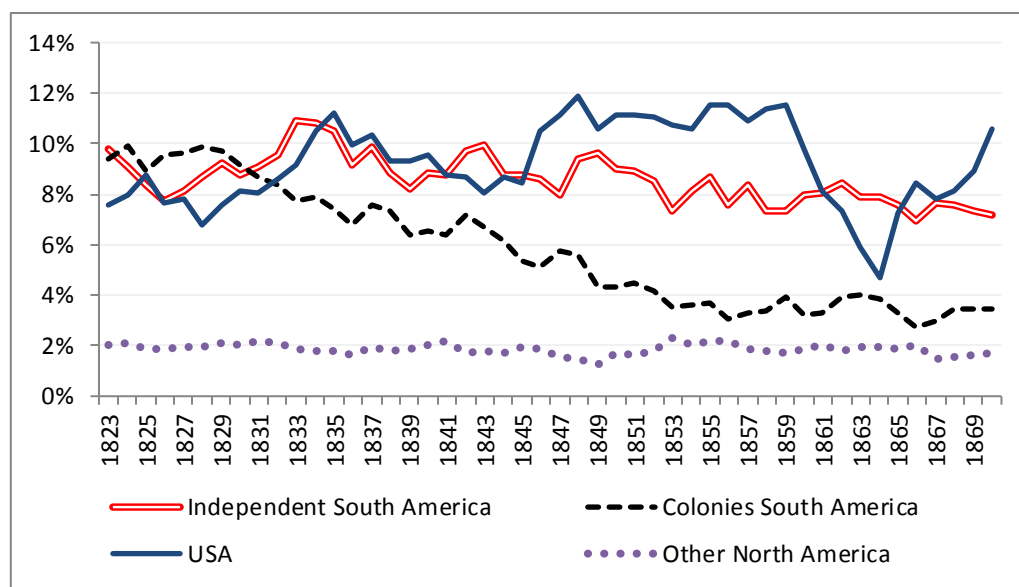
the independence war, recovered in the 1830s and 1840s and fell sharply in the 1850s and 1860s, but the size of the fluctuation is much greater in Lima than in Mexico City.

4. Measuring the performance of the Americas: exports

According to our estimates, during the ‘lost decades’, total exports of the 44 American polities grew quite fast, but less than ‘world’ trade.⁷ Exports from the Americas increased by 4.4 times (a yearly rate of 3.35%) but world trade increased by 6.8 times (a rate of 4.10%).⁸ The share of exports from the Americas (at current prices) fluctuated slightly below 30% until the mid1830s, declined very slowly in the 1840s and 1850s, collapsed to about 20% during the American Civil War and remained low throughout the 1870s.

These movements in the aggregate share is the net sum of widely different trends, as Figure 1 shows.

Figure 1
Shares on ‘world’ trade, current prices



Sources: Federico-Tena (2016)

⁷ We estimate ‘world’ trade from 1823 onwards as the sum of exports of 63 polities (44 American and 18 additional ones), accounting for about four fifths of total world exports in 1850 and in 1870 (Federico and Tena 2016).

⁸ Unless otherwise stated, here we compute rates of change as $w = -\beta/\psi$, where β and ψ are coefficients from a regression (Razzaque et al 2007) $\Delta \ln W_t = \alpha + \beta \text{ TIME} + \psi \ln W_{t-1} + \phi \ln \Delta \ln W_{t-1} + u$. We estimate cumulate change over a period of n years as $\text{Tot} = [\exp(w)^n] - 1$

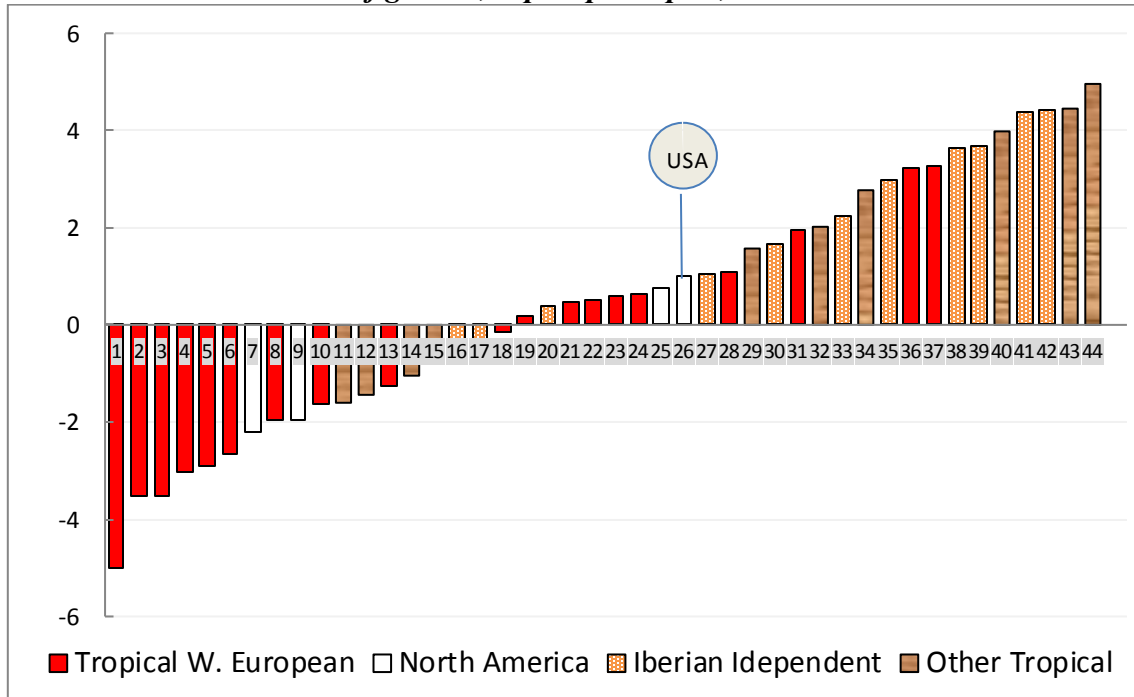
Shares of the independent countries and of the Other North America (mostly Canada) remained broadly constant in the long run, with a very modest decline in the 1850s and 1860s. The United States managed to increase its share of world trade until the Civil War, thanks to the almost parallel increase of exports of tobacco and cotton from the South and wheat flour and cotton manufactures from the North.⁹ Thus, the decline of the aggregate share on ‘world’ trade reflects mostly the collapse of exports from the European colonies in the 1830s and early 1840s (partially compensated by the rise of exports from the United States) and of exports from the Southern USA during the Civil War and its aftermath.¹⁰

The American performance appears even worse if we consider that total population increased, according to our estimates, from 3.7% to 6.4% of the world total between 1820 and 1870 (Federico and Tena 2017 a)). The growth rate of exports per capita in the Americas was barely above a third of the rate of the rest of the ‘world’ (1.4% vs. 3.6%). However, as Figure 2 shows, not all polities performed poorly.

⁹ Tobacco and cotton accounted for about a half of American exports (and for 6-8% of world trade) from the 1820s to the eve of the Civil war, with a peak of almost two thirds in the 1830s (Historical Statistics USA 2007 series Ee 571, Ee 573, Ee575-576).

¹⁰ The decline of the share of Southern United States accounts for 140% of the decline from 1858-60 to 1868-1870. Exports from Northern United States (defined as total exports less cotton and tobacco) increased from 5.6% to 6.7% of world trade.

Figure 2
Rates of growth, export per capita, 1820-1870



Sources: Table 1 Appendix.

In Figure 2 we introduce a more refined classification, distinguishing ‘Western European’ colonies (British, French, Danish and Swedish territories, all located in the Caribbean with the exception of the Falklands) from Spanish ones (i.e. Cuba and Puerto Rico), which we include in ‘Other Tropical’ alongside independent tropical countries (most notably Brazil). Only seven polities out of 44, all independent countries, outperformed the rest of world, and only one, a tropical one (Nicaragua) by more than one percentage point. On the other side of the range, exports per capita declined in fifteen polities and all of them but two (the Dominican Republic and Haiti) were Western or North European colonies (see Appendix Table 2).

These comparisons may be deemed unfair, as they do not account for the initial level of exports per capita. *Ceteris paribus*, it is much easier to increase exports per capita when starting from a low level rather than from a high one. Before the French Revolution, the Americas exported proportionally more than any other extra-European continent to Europe: according to De Vries (2010), sugar exports were four times larger than total Asian exports, and all American exports, including other tropical products and

silver from Mexico and Peru, might have been ten times larger. Despite political shocks, in the 1820s the gap between the Americas and the rest of the world, and among different groups of polities within the Americas, were still very wide (see Table 2).¹¹

Table 2
Exports per capita in 1823-1825 (1913 \$)

Americas	5.25	North America	7.30	USA	5.73
Asia	0.27	Independent Other	2.75	Mexico	1.92
Europe	1.93	Independent tropical	3.32	Brazil	3.48
Oceania	1.79*	Spanish colonies	7.22	Cuba	7.77
World	1.36	Western European colonies	26.81	Jamaica	29.40

*1826-1828. Source: Exports Federico and Tena (2016) and population Federico and Tena (2017b))

Only two Central American independent tropical countries and Ecuador exported less than the average of the rest of the world (0.93 in 1913 dollars), while the average exports per capita of ‘Western European’ colonies in the 1820s exceeded exports per capita of 93 out of 130 world polities in 1913. The gap between the Western European colonies and the rest of the continent (and a fortiori the rest of the world) shrank in the next half century but still remained substantial. At the end of the ‘lost decades’ their exports per capita were ‘only’ 80% higher than the average of the rest of the continent, rather than five times higher as in the early 1820s.¹²

5. The lost decades after independence? Mexico and the rest

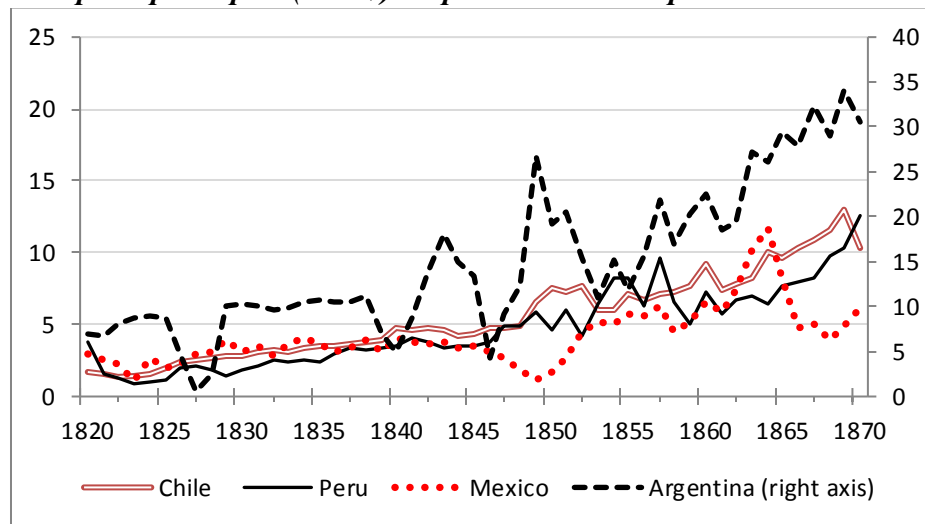
Mexico deserves special attention because it was the most populous South American country until the 1860s and because its political history during the ‘lost decades’ was exceedingly troubled, featuring external wars, military coups and popular uprisings (see Bates et al 2007 and Dobado et al 2008). Colonial Mexico exported mostly silver, supplying about two thirds of world total around the turn of the 18th century (Dobado-

¹¹ In Table 2, we further distinguish within ‘other tropical’ between (Spanish) colonies and independent countries

¹² See export per capita average levels for individual American polities in Appendix Table 2.

Marrero 2001, p.285). Mining had been hit hard during the independence war and production in the 1820s was about half the pre-war level (Cardenas 1997 Tab.1). Output recovered very slowly in the 1830s and in the first half of the 1840s, but then the recovery accelerated in the second half of the decade, with an overall yearly growth rate of 2.2% in the period 1821-1850 (Sánchez-Santiró 2009 p.81). Indeed, our series of exports per capita (Figure 3), based on the new estimates by Kuntz and Tena (2017), show a long-term upward trend, with an acceleration in the 1850s and the early 1860s and deep crises during wars.

Figure 3
Exports per capita (1913\$): representative independent countries



Sources: Federico-Tena (2016)

Furthermore, trends in exports per capita accord with the population growth estimates by McCaa (1993), the real wage series by Challu and Gomez-Alvariato (2014), and the evidence on the resilience of subsistence agriculture, which employed the vast majority of the population (Tutino 1986, Cardenas 1997). Indeed, exports collapsed in parallel with and probably as a consequence of external crises. Thus, our results support the view by Sánchez-Santiró (2009), who has recently argued that, at least until the second half of the 1850s, domestic disturbances were mostly urban and short-lived events and thus did not affect the rest of the economy.

Figure 3 plots exports per capita for the three other largest temperate independent countries. They all were success stories, despite rather different post-independence political histories. North et al (2000) single out Chile, jointly with Brazil,

as a haven of political stability and, indeed, the country attained one of the highest growth rates of GDP per capita (cf. Section Three). Chile had already been well integrated into the metropolitan and world market during the colonial period and exploited well the opportunities of the globalizing post-Waterloo world (Gellman 2009). Its export-led growth was fueled by the discoveries of silver veins and of accessible copper deposits. Copper output rose from 1,500 tons before independence to around 18,000 tons in the 1850s (Llorca-Jaña 2012). From the early 1820s to 1870, total exports from Chile increased by 14 times, growing from 0.23% to 0.68% of world trade

Peru and Argentina did not enjoy the same degree of political stability. North et al (2000 p.45) highlight Peru, alongside Mexico, as the ‘archetypal’ cases of dysfunctional institutions. The collapse of Argentine exports in 1826-1828, 1838-1840 and 1845-1848 (Figure 3) coincided with blockades of Buenos Ayres port (respectively by the Brazilian, the French the Anglo-French). Yet, both countries succeeded in increasing their share of world exports during the ‘lost decades’, respectively from 1.12% to over 1.79% and from 0.21% to 0.46%. Argentina exported salted meat, hides and wool, and the boom of exports reflects the expansion of cattle raising on the land seized from the natives. The acreage for pasture tripled and the cattle population expanded from 1 million to 6 million in addition to 38 million sheep (Gellman 2009, p.36). Colonial Peru was similar to Colonial Mexico: it exported mostly silver to Spain and developed an internal market around the mining cities (Contreras and Cueto 2004). As in Mexico, the production of silver plummeted during the independence war (Arroyo Abad 2014). By 1840, it was back to pre-war levels, but afterwards exports stagnated and silver was substituted by guano and other minor commodities such as saltpeter and wool after 1850 (Hunt 1984). However, this boom was short-lived, as the deposits of guano were limited and its demand was hit very hard by the competition of chemical fertilizers (Federico 2005).

It would be possible to continue this analysis considering other countries, but the message is clear. Most independent (non-tropical) countries managed to exploit the growth of world demand during the first globalization and exports were the main driver of their economic growth. Domestic political turmoil and poor institutions did not necessarily prevent success on the world market, while external wars were destructive for short periods.

6. The Americas and the competition on the market for tropical products

In the previous Section, we have dealt with polities separately as each of them was a small player on the world market for its staple, with the possible exception of silver. This approach is not suitable for the polities located between the two Tropics. These polities exported almost exclusively tropical products (Table 4 a) and, until 1830, they dominated the world market (Table 4 b). The ‘Western European’ colonies supplied 60% of sugar (and Brazil and the Spanish colonies a further 30%), Brazil, the Spanish colonies, the ‘Western European’ colonies and the independent American countries (including Haiti) a fifth of coffee consumption each, and the Southern United States two thirds of world cotton.

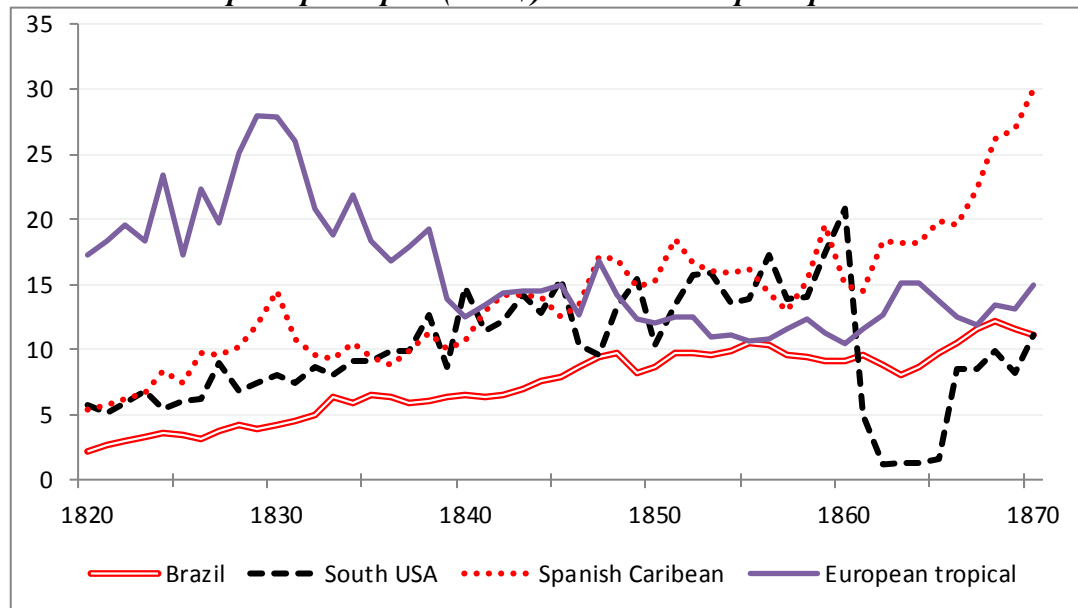
Table 3
The market for tropical goods

	Brazil	British Colonies in America	French colonies in America	Cuba and Puerto Rico	Other tropical countries	USA	Other Non tropical producers
Share of tropical products on total domestic exports							
1830	78.4%	100.0%	100.0%	92.7%		62.4%	
1850	84.1%	100.0%	100.0%	93.8%		78.2%	
1870	85.9%	100.0%	100.0%	97.9%		78.6%	
1913	90.3%	100.0%	100.0%	94.1%		36.4%	
Share of polity on world trade of tropical goods							
1830	8.8%	17.7%	5.1%	8.4%	26.3%	17.6%	16.2%
1850	12.2%	5.2%	1.9%	9.8%	28.9%	29.4%	12.4%
1870	9.9%	3.9%	1.5%	10.4%	33.5%	28.5%	12.4%
1913	12.4%	1.5%	0.5%	7.5%	39.4%	29.1%	9.7%

Source Federico and Tena (forthcoming)

Trends in exports per capita confirm the stark contrast between the collapse of the European colonies and the rise of other suppliers (Figure 4).

Figure 4
Exports per capita (1913\$): American tropical polities



Sources: Federico-Tena (2016)

The rise of exports per capita from the Southern United States reflects the four-fold growth of exports of cotton, from 280 million pounds in 1830 to 1,424 million in 1860 and the doubling of tobacco exports, from 82 to 164 million pounds (Historical Statistics USA 2006 series Ee 570 and Ee572). This success was thus independent from the crisis of the European tropical colonies, which in 1830 did not export tobacco and accounted for only 2% of the world cotton trade. The exports per capita from the Southern United States collapsed from 20.8 dollars to 1.1-1.6 dollars during the Civil War, and recovered only partially after the war. By 1870, it still supplied 56% of world cotton (vs. 73% in 1850) and 46% of tobacco (vs. 49% in 1850) but its share of world trade was down to 3.6% (vs. 6.1% twenty years before).

Cuba and Puerto Rico performed quite well. Their exports per capita increased more than fivefold and their combined share of 'world' trade fluctuated around 1.5%, with peaks of around 1.7%. Sugar and its derivatives accounted for 55% of total Cuban exports in 1820 and for over 80% fifty years later, while exports of coffee disappeared (Federico and Tena forthcoming). The output of sugar increased by 14 times (Deer 1949), due mostly to substantial investments funded by Spanish and local capital (Dye 1998, Santamaria and Garcia 2004 pp. 177-8). The key innovation was the centralization of processing in large steam-powered mills (denominated 'Centrals') that

crushed the cane of several plantations, and the construction of sugar plantation railways to carry the highly perishable cane from the fields to the factory. This strategy paid off, as the Spanish colonies increased their share of world sugar exports from 15% in 1830 to 38% in 1870 (Federico and Tena forthcoming). Our constant market share analysis shows that this success would have augmented their share of total world exports by half a percentage point, had it not been more than compensated by a decline in the share of sugar in world trade.

Brazil followed a different developmental path, which featured a change in specialization and a shift in the location of export production from Bahia and Pernambuco in the North-East to Rio, São Paulo and Minas Gerais in the South-East (Leff 1973 and 1997, Klein and Vidal Luna 2010). In the early 1820s, sugar accounted for about a quarter of total exports, coffee for about a fifth and cotton for a sixth (Absell and Tena 2016). In the next half a century, cotton exports remained constant, with a spike in the 1860s and early 1870s, sugar exports increased by 2.5 times, peaking in the mid-1850s, and coffee exports soared, growing by almost twenty times. Coffee overtook sugar as the main Brazilian staple around 1830, and grew to half or more of all exports from the 1850s onwards. The Southern states had a favorable climate, a considerable endowment of fertile land and a 'vast informal credit market' (Frank 2005), but the growth of coffee production was initially hampered by poor infrastructure and high transportation costs (Klein 1990). However, the bottleneck was eased by the construction of railways in the 1860s, meeting the requests of the coffee planters (Summerhill 2005 and 2006). This development path was initially very successful: Brazil's exports per capita increased fourfold from the early twenties to the 1850's and the country almost doubled its share of world exports, from 2.2% in the late 1820s to (almost) 4% thirty years later. The gains in the markets for tropical products account for all the growth in the share of Brazil in world trade in those years (Federico and Tena forthcoming). From 1850 to 1870, Brazil succeeded in maintaining its share of world market of tropical products, but lost competitiveness in non-tropical exports (minerals) and was affected by changes in the composition of world trade. Thus, at the end of the 'lost decades' its share of the world market was down to about 2.8%.

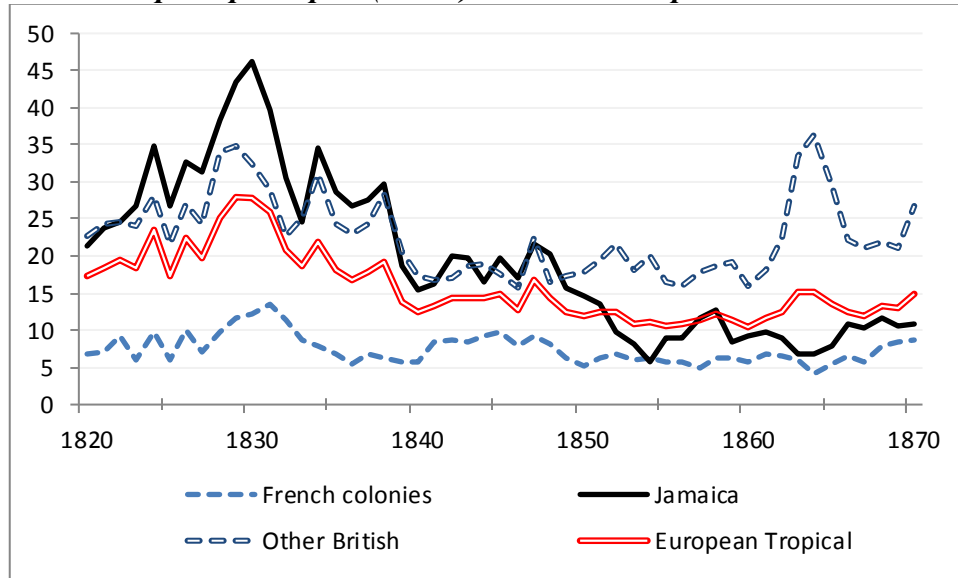
Despite their differences, these three success-stories share a common trait: the persistence of slavery until the end of the period. In the early 1860s, there were 3.95

million slaves in the United States, up from 1.55 in 1820, 1.5 million in Brazil, up from 1.1 in 1819, and around 400,000 in Cuba and Puerto Rico (Historical Statistics 2007, series ??, Klein and Vidal Luna 2010 p.76, Klein 1986 Tab 1 and 2). The growth in the Brazilian slave workforce may seem modest relative to the surge in exports, but slaves were increasingly concentrated in the booming Southern states. They accounted for around a third of all Brazilian slaves in 1819 (around 0.4 million) and for about half in 1872 (over 0.7 million). As is well known, slavery was abolished in the United States in 1865, and this marked the start of its demise in the whole Western Hemisphere. It was abolished in Puerto Rico in 1873, and the Spanish and Brazilian governments approved the so-called free-womb laws (the Moret Law, 1870 and the Rio Branco Law in 1871) that freed all children of slaves (Schmidt-Nowara 2010). Import of slaves had been outlawed in Puerto Rico since 1844, in Brazil since 1850 (after a bombardment by the Royal Navy) and in Cuba since 1866, and thus these laws implied a gradual withering of slavery. Slavery was formally abolished in Cuba in 1886 and in Brazil two years later, but the system was already collapsing due to slave desertion (Klein and Vidal Luna 2010). By then, Brazil was substituting slaves with European immigrants and its share on the world market of tropical products (i.e. coffee) increased to 12.4% in 1890.

7. The collapse of Caribbean exports and slave emancipation

Exports from the 'Western European' colonies grew quite fast in the 1820s, to about 45 million (1913) dollars in 1828-1830, equivalent to 6.9% of 'world' trade. In the next twenty years, total exports halved to 22 million, and their share collapsed to about 2%. About two thirds of this collapse is explained by the loss of their market share in tropical products (Federico and Tena forthcoming). Exports did recover in the following decades: in 1870 they were about one half higher than in the mid-1850s and in 1913 about 1.6 times higher. Yet, their share on the 'world' market continued to slide, declining to 1.1% and 0.5%, respectively. If we consider exports per capita, the picture is pretty much the same – a total fall by 55%, from 27.8 dollars in 1830 to 12.4 in 1840 (Figure 5).

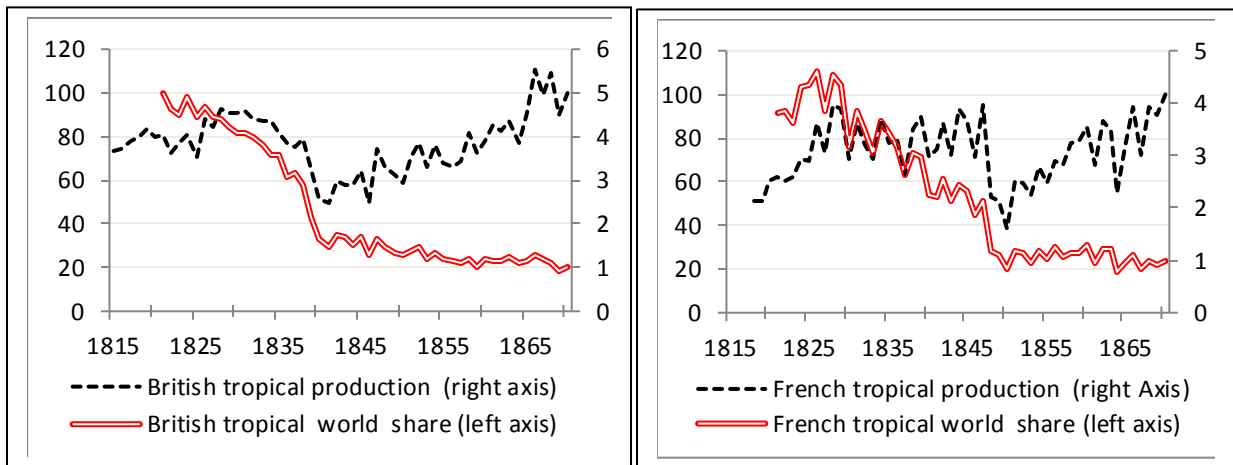
Figure 5
Exports per capita (1913\$): Western European colonies



Sources: Federico-Tena (2016)

The key for this disappointing performance is the export of sugar, which accounted for three quarters of total exports from the British colonies and seven eighths from the French ones. Their output of sugar barely grew in the period, while world production increased by 3.5 times (Figure 6).

Figure 6
Output of sugar in British and French colonies and world output share (1870=100)



Source: British and French colonies from Deerr 1949; World from Moreno Fraginals (1978)

The massive decline in production in the British colonies in the late 1830s and in France in the early 1850s coincides with the abolition of slavery. Slaves in Haiti had successfully revolted in 1791, gaining freedom and independence in 1804, but no other revolt ever succeeded. Slavery in the British colonies was abolished on January 1st 1834, but former slaves were obliged to remain on the plantations (for a shortened working day) and were eventually freed only in 1838 (Green 1976, Fogel 1989 pp.218-233, Drescher 2010). France abolished slavery only in 1848, after the fall of Louis Philippe (Fogel 1989 p. 234, Stauffer 2010) and the Netherlands followed in 1863, after two decades of debate (Den Heijer 2010).

Emancipation was bound to negatively affect the output of plantations, as it increased labor costs and disrupted the organization of production. The former slaves had to be paid wages above the pre-abolition cost of food and lodging and were less dependable than slaves. Unsurprisingly, exports of all ‘Western European’ colonies, except the tiny Leeward Island, hit the trough of the whole period 1820-1870 two to three years after emancipation (Table 4).

Table 4
The effects of emancipation on exports of European Tropical colonies

	British Colonies	French Colonies	Dutch Colonies	Western Tropical
Before abolition (three year average)	1837	1847	1861	
All time minimum (three year average)	1841	1850	1866	1840
Percentage changes				
All period (1830-1870)	-24.2	12.2	-67.3	-24.9
1830 to all-time minimum	-51.5	-42.5	-69.3	-48.7
Before/after abolition	-33.6	-27.0	-28.2	
Before/after abolition (unweighted average)	-32.9(0.42)	-49.2(0.45)	-19.2(0.85)	
Contribution of Abolition	47.5	50.1	17.4	

Source: Federico and Tena (2016)

The post-emancipation shock cut exports by about a third on average, although the variance in the size of the shock was huge, as shown by the coefficient of variation of the unweighted averages (in brackets). In contrast with the conventional wisdom, this fall, although massive, accounted only for about a half of the total decline in exports from ‘Western European’ colonies (Table 4, row ‘contribution of abolition’). As said, their total exports had peaked in 1830-1831 and in many cases the stagnation or decline had started much earlier – i.e. before any plausible threat of abolition. For instance, the

sugar production of Jamaica hit its all-time peak in 1806, fell by a tenth until 1820 and by a further 18% to 1830. Unlike the Southern United States, the sugar islands of the Caribbean (as well as Brazil) required a steady flow of new slaves from Africa and thus the plantation system was hampered by the prohibition of the slave trade.

After emancipation, the sugar islands faced two possible solutions, either to keep their specialization in sugar and increase productivity, as in Cuba, or, like Brazil, to change specialization towards a product, like coffee, which could not be produced in technologically advanced consuming countries and thus was less subjected to protection and competition. Jamaica did a bit of both towards the end of the century, investing in modern sugar processing plants and increasing the production of bananas (Eisner 1961), but it was too little, too late. In fact, the recovery from the shock of abolition was very slow. Exports from the 'Western European colonies did not even exceed permanently the level of the 1830s before 1870. The loss of market shares in their traditional export products (i.e. mainly sugar) accounts for two thirds of the decline in overall share of exports from British colonies in 1830-1850 and for two fifths in 1830-1870 (Federico and Tena forthcoming). To be sure, the recovery of exports from the British and French colonies was hampered by the loss of the preferential treatment they enjoyed in the United Kingdom and France and by the rise of new competitors. In the United Kingdom, the differential duty for colonial sugar was progressively reduced, down to zero in 1851 (Green 1976 p. 229-230). This was part of the final push towards the liberalization of the British market (Curtin 1954), but it might have also been suggested by the rise of real prices of Jamaican sugar under the preferential regime.¹³ Either way, the recovery of other tropical American producers after the abolition of slavery was decidedly faster.¹⁴

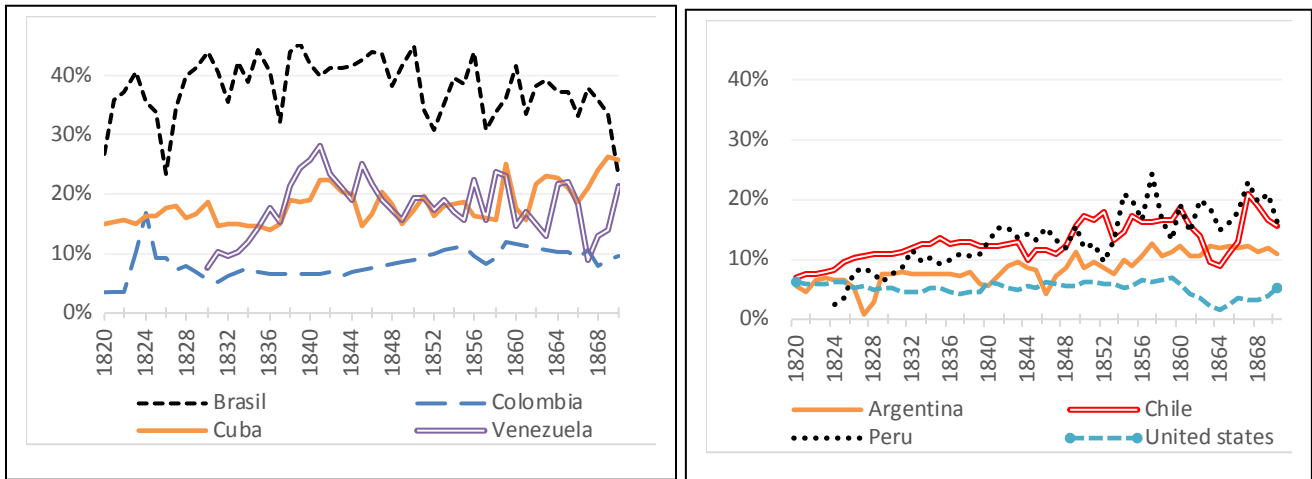
¹³ The nominal price of Jamaican sugar in London to 1850 Gayer-Rostow -Schartz (1953) and afterwards from Sauerbeck (1986), deflated with wholesale price indexes from the same sources (Mitchell 1988) pp.723-727). The US real prices are computed linking three different series of prices for sugar (Historical Statistics 2006 series Cc218, CC220 and Cc 220) and deflating with index prices Cc113 and Cc124.

¹⁴ Exports from Cuba fell by 42% from 1883 to 1890 but rose at a very fast rate (7.18% per annum) from 1890 to 1913. Exports from the Southern United States fell by 44% from 1859 to 1867 and grew at 3.87% thereafter. The post-abolition shock was somewhat smaller but still sizeable in Brazil (10% from 1884 to 1889) but the growth of exports was equally fast (3.49% from 1889 to 1913).

8. Exports and GDP

As hinted in the introduction, many scholars assume exports to have been the main or sole source of growth for Latin American countries during the ‘lost decades’. Of course, this by no means implies a perfect correspondence between rates of growth of exports and the rate of growth of GDP. Any difference would show in export/GDP ratios, which can be computed for the United States and seven South American countries, Argentina, Brazil, Chile, Colombia, Cuba, Peru (since 1826) and Venezuela (since 1830) at current prices (Figure 7).¹⁵

Figure 7
Export/GDP ratios, available countries



Sources: See text

Differences in levels among countries are not surprising, given the well-known inverse relation between openness and size. The very high level of openness for Brazil might be surprising, but in those years the country consisted of tiny pockets of export-oriented areas, with little or no domestic trade. In Brazil, as well as in Venezuela and in the United States, export and GDP grew in parallel, while their ratio increased significantly in the other four countries.¹⁶

¹⁵ We compute them as the ratio of our export series to GDP at current prices from sources listed in Section Three, plus series for Argentina, Colombia and Cuba (only at current prices) from Bulmer Thomas 2012 Appendix on live tab A.3.4.

¹⁶ The rates of change in the ratio are 2% for Argentina (significant at 1%), 1% for Chile (significant at 5%), 0.9% for Colombia (significant at 5%), 0.7% for Cuba (significant at 1%) and 2.1% for Peru (significant at 5%).

Unfortunately, we do not have data on GDP for the other 36 polities, which accounted for between a third and two fifths of the population of the Americas. Thus, we estimate openness by using the available data on exports per capita. As a first step, we show that the two variables are strongly correlated by running a fixed effect panel regression for the eight countries from Figure 7.

$$\ln \alpha_i^t = c + \beta \ln X_{PCi}^t \quad (1)$$

where α_i is openness at current prices and X_{PCi} exports per capita at constant prices.¹⁷ The coefficient β is 0.46 with USA and 0.47 without it, both significant at 1%. We could use this co-efficient to estimate openness for missing countries, but, given the different trends in openness, we prefer to use country-specific coefficients, which we obtain from the panel regression

$$\alpha_i^t = c + FE_i + \beta_i X_{PCi}^t \quad (2)$$

We estimate yearly export/GDP ratios for the j -th missing country as

$$\alpha_j^t = c + FE_i + \beta_i X_{PCj}^t \quad (3)$$

selecting the fixed effects and coefficient for the i -th country which seems more similar for location, factor endowment and specialization to the j -th polity.¹⁸ By definition, given openness and exports, we can compute GDP per capita at constant prices as

$$GDP_{PCj}^t = (X_{Tj}^t / \alpha_j^t) / POP_j^t \quad (4)$$

We check our results (or Baseline Estimate) by computing yearly series of GDP for missing countries as the sum of exports and domestic value added (Alternative estimates).¹⁹ We assume this latter to have grown as much as population, starting from

$$VA_j^{t0} = (X_j^{t0} / \alpha_j^{t0}) - X_j^{t0} \quad (5)$$

1%). The rates are not significant for Brazil, Venezuela and the United States, where openness increased before the Civil War (0.6% p.a., significant at 10%).

¹⁷ We prefer to use data at current prices on the right/hand side and at constant prices in the left hand side to reduce the amount of spurious correlation.

¹⁸ We use the coefficients for Cuba to estimate openness of “tropical countries” group, except for the Central American countries that we use Colombia; Argentina for the Falkland islands; United States for Other North America; Peru for Paraguay, Mexico, Bolivia and Ecuador.

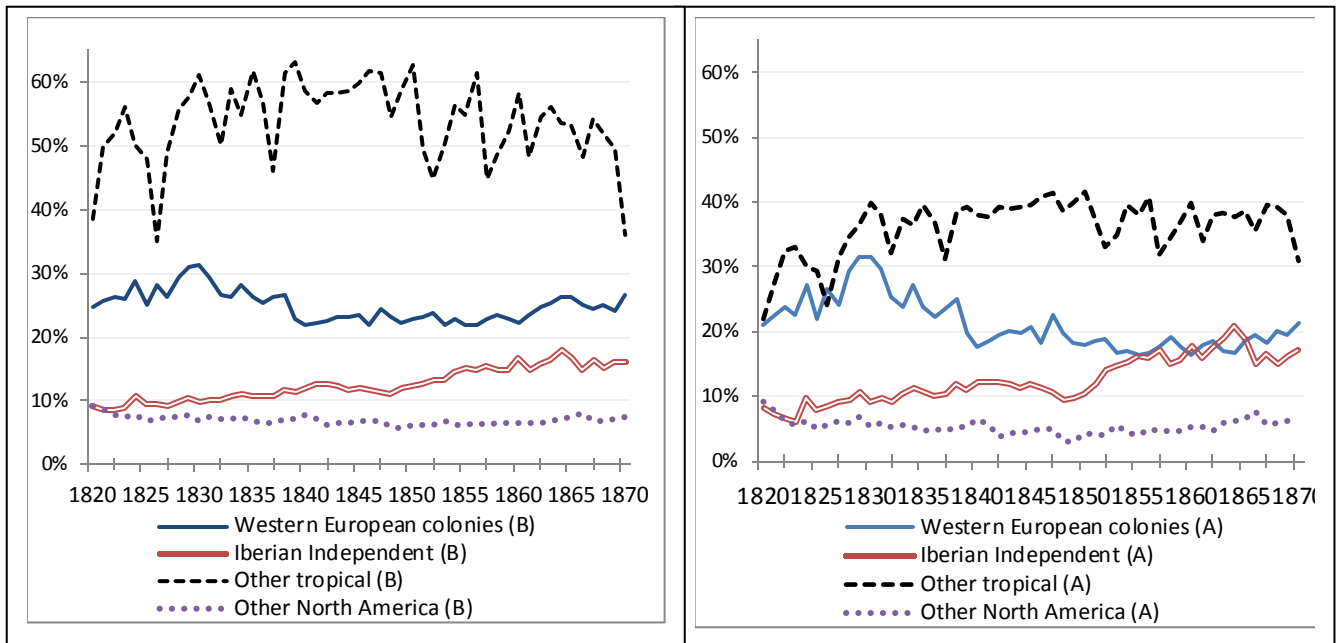
¹⁹ This estimate is broadly inspired by the work by Prados de la Escosura (2012) on African income. However, he extrapolates backwards the GDP from its end-year (1950) and he divides the economy into a traditional sector (value added growing as much as population) and a modern one (value added growing as much as exports). He assumes this latter to be twice in size the export sector in 1950, and obtains the Value Added of the traditional sector as a residual.

We aggregate the series of openness by polities in groups as in Figure 2, weighting with shares on population, and we plot them separately for our ‘baseline’ estimates (Figure 8a) or with the ‘alternative’ one (Figure 8 b) – in both cases using actual series whenever possible.

Figure 8
Openness ratios, 1820-1870

(B) ‘baseline estimate’

(A) ‘alternative estimate’



Sources: see text

In the long run, openness remained constant in the United States (Figure 7), Other North America and other tropical countries. In the Western European colonies, it remained constant according to the baseline GDP estimate, while it declined according to the alternative one. The export/GDP ratio unambiguously grew only in the (non-tropical) independent polities. We report the long-run rates of growth in GDP per capita for the same groups in Table 5.

Table 5
Rates of growth of GDP per capita, 1820-1870

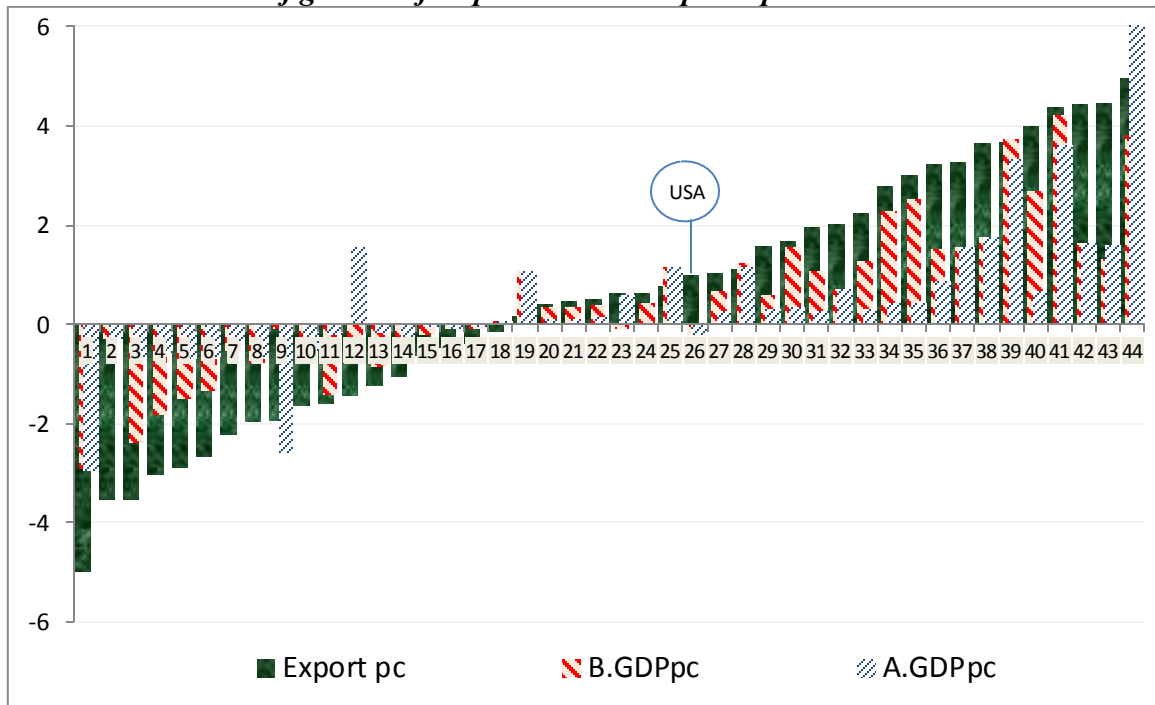
	Average		Population weighted	
	Baseline	Alternative	Baseline	Alternative
United States	1.17	1.17	1.17	1.17
Other North America	-0.06	-0.10	0.40	0.02
Western European colonies	0.18	-0.22	-0.38	-0.17
Other tropical	0.79	1.29	0.94	1.24
Independent	1.32	0.76	1.35	0.71
All polities	0.60	0.32	1.12	0.95
significant only	0.39	0.42	1.07	0.90

Sources: see text

The estimates, although admittedly tentative, do not support the pessimistic view of the performance of the Latin American economies, even in the more prudent ‘alternative’ estimate, which implies no productivity growth in the traditional sector.²⁰ Only the British and French colonies experienced difficult times, according to the previous section, mostly because of the abolition of slavery. Figure 9 shows the rates of change of GDP per capita, in both definitions, alongside rates for exports (the same as in Figure 2), which are by construction higher.

²⁰ Furthermore, the alternative estimate implies zero income elasticity for non-tradables –i.e. that all the increase in export income was spent in imported goods (with a balanced trade).

Figure 9
Rates of growth of Exports and GDP per capita 1820-1870



Notes: "Export pc": Exports per capita at constant prices, the same as Figure 2. "B.GDPpc": Baseline estimation of Exports per capita at constant prices; "A.GDPpc": Alternative estimation of Exports per capita at constant prices. Method of estimation see text.

Sources: List of countries Appendix Table 1.

According to our estimates, GDP per capita declined in 18 out of 44 polities and 11 of them were the Western European colonies. On the other side of the range, GDP per capita grew faster than in the United States in fifteen polities according to the baseline estimate and in eight according to the alternative one, five of them included in other tropical polities.

9 Conclusions

In this paper, we have argued that the conventional wisdom regarding the poor performance of the Latin American polities during the 'lost decades' must be revised because it papers over huge differences among them. The export performance of the former British and French colonies in the Caribbean, which never recovered from slave emancipation, was indeed very poor, and probably caused a decline in GDP per capita. Other countries performed much better, including Mexico, despite the impact of war. Brazil and the remaining Spanish colonies, as well as tropical countries on other continents, benefitted from the collapse of the Tropical European colonies but

succeeded in increasing exports by investing in sugar production and diversifying in less competitive markets. Further South, other independent countries exploited successfully the growth of world demand for temperate and mining products. We exploit our export series to tentatively estimate GDP for all polities when missing and, unsurprisingly, the results confirm our view – even in the most conservative ‘alternative’ estimate. Most Latin American countries, including the largest ones by population, performed fairly well, as they could exploit very abundant natural resources. These decades were not so lost, after all.

References

Absell, C. D. Tena-Junguito A. (2016): “Brazilian export growth and divergence in the tropics during the nineteenth century” *Journal of Latin American Studies* Volume 48, Issue 4, November 2016, pp. 677-706.

Acemoglu, D., Johnson, S. and Robinson, J. (2001a): “The Colonial Origins of Comparative Development: An Empirical Investigation”, *American Economic Review* 91, pp. 1369-1401.

-- (2002), “Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution”, *Quarterly Journal of Economics*, 117, pp. 1231-1294.

Allen, R.C., Murphy, T.C. and Schneider, E.B. (2012) “The Colonial Origins of the Divergence in the America: A Labour Market Approach”. *Journal of Economic History*, 72, pp. ???

Amaral, S. (1993). “Del mercantilismo a la libertad: las consecuencias económicas de la independencia argentina” in Prados de la Escosura y Samuel Amaral (eds). *La Independencia Americana consecuencias económicas*. Alianza Universidad, Madrid.

Arroyo Abad, L. (2013): “Persistent Inequality? Trade, Factor Endowments, and Inequality in Republican Latin America”. *Journal of Economic History* 73, 1 (March): 38-78.

Arroyo Abad, L. (2014): “Failure to launch: cost of living and living standards in Peru during the 19th century.” *Revista de Historia Económica. Journal of Iberian and Latin American Economic History*, nº1, Vol. 32, 2014 pp. 47-76.

Arroyo Abad, L., Elwyn Davies and Jan Luiten van Zanden (2012) Between conquest and independence: Real wages and demographic change in Spanish America, 1530–1820, *Exploration in Economic History* pp.

Arroyo-Abad, L. Van Zanden J.L. (2016): Growth under extractive Institutions? Latin American per capita GDP in colonial times. *Journal of economic history* 76 pp. 1182-1215

Bates, R. H.; Coatsworth, J.H. and Williamson, J.G. (2007) ‘Lost decades: post-independence performance in Latin America and Africa’ *Journal of Economic History* 67 (2007) pp. 917-944

Bertola, L.- Ocampo, J.A. (2012) *The Economic Development of Latin America since Independence*. Luis Bertola and Jose Antonio Ocampo , Oxford University Press. 352 pages. Dec 2012.

Broadberry Stephen, Bruce M.S. Campbell, Alexandr Klein, Mark Overton and Bas van Leeuwen (2015) *British economic growth Cambridge* Cambridge University Press

Bulmer-Thomas, V. (2003): *The Economic History of Latin America since Independence*, second Edition. Cambridge University Press, New York 2nd edition

Bulmer-Thomas V. (2012) *The economic history of the Caribbean since the Napoleonic wars* Cambridge: Cambridge University Press 2012

Cardenas , E. (1997): “A Macro-economic interpretation of the Ninetheenth Century Mexico” in S. Haber(ed.). *How Latin American Fell Behind*. Palo Alto, CA: Stanford University Press, pp.65-92.

Challú, A.E. and Gomez-Galvariato (2015): “Mexico real wages in the age the Great Divergence, 1730-1930.” *Revista de Historia Económica. Journal of Iberian and Latin American Economic History*, 33. pp.83-122.

Centeno, M. A. (1997): “Blood and Debt: War and Taxation in Nineteenth-century Latin America” *The American Journal of Sociology*, Vol.102 n° 6, pp 1565-1605.

Coatsworth, J.H. (1978) “Obstacles to Economic Growth in the Nineteenth –Century Mexico” *American Economic Review* 83:1(feb1878), pp.80-100.

Coatsworth, J.H. (1993): ‘La independencia latinoamericana: hipótesis sobre los costes y beneficios’, in L. Prados de la Escosura and S. Amaral, eds., *La independencia americana: consecuencias económicas*, Madrid, pp. 17-27.

Coatsworth, J.H. (1998), “Economic and Institutional Trajectories in Nineteenth-Century Latin America”, in John H. Coatsworth and Alan M. Taylor (eds.), *Latin America and the World Economy since 1800*, Cambridge, MA: Harvard University Press David Rockefeller Center.

.Coatsworth, J.H. (2005) “Structures, Endowments, and Institutions in the Economic History of Latin America.” *Latin America Research Review* 40, no. 3 (2005): 126–44.

Coastworth , J.H. (2006), “Political Economy and Economic Organization in V. Bulmer-Thomas, J.H. Coatsworth, and R. Cortés Conde (eds.), *Cambridge Economic History of Latin America* (Cambridge 2006).

Coatsworth, J.H. [2008]; “Inequality, Institutions and Economic Growth in Latin America,” *Journal of Latin American Studies*, Vol. 40, pp. 545-569.

Coatsworth, J.H. - Williamson,J.A. (2004) “Always Protectionist ? Latin American Tariffs from Independence to the Great Depression”, *Journal of Latin American Studies*, vol. 36, no. 2 (2004), pp. 205–32.

Contreras, C. and Cueto,M. (2004) *Historia del Perú contemporáneo*. Lima: Instituto de Estudios Peruanos.

Curtin , P. D. (1954) “The British Sugar Duties and West Indian Prosperity”. *The Journal of Economic History* . 14, No. 2 (Spring, 1954), pp. 157-164.

Daget, S. (1988): Répertoire des expéditions négrières françaises à la traite illégale, 1814-1850, Nantes, CRHMA, 1988.

Daget S. (1997): La repression de la traite des noirs au XIX^e siècle. Actions des croisières française sur les côtes occidentales de l'Afrique (1817-1850). Karthala avec concours CNRS. Nantes.

De Corso, G. (2013) ‘El crecimiento económico de Venezuela, desde la oligarquía conservadora hasta la revolución bolivariana: 1830-2012. una visión cuantitativa’ *Revista de Historia Económica, Journal of Iberian and Latin American Economic History*, 31 pp 321 – 357.

Deerr N. (1949) *A History of Sugar*, London: Chapman

Den Heijer Henk (2010) ‘Dutch Caribbean’ in Robert L. Paquette and Mark M. Smith (eds) *The Oxford handbook of the slavery in the Americas* Oxford University Press Oxford pp.154-172

De Vries J. (2010) ‘The limits of globalization in the early modern world’ *Economic history review* 63 (2010) pp.710-733.

Drescher S. (1977) *Econocide: British Slavery in the Era of Abolition*. Pittsburgh: University of Pittsburgh Press, 1997.

Drescher S. (1999) “Free Labor vs. Slave Labor: The British and Caribbean Cases” in “*Terms of Labor : Slavery, Serfdom, and Free Labor Making of Modern Freedom* (ed.) by Engerman, Stanley L. Stanford University Press.

Drescher S. (2002) *The Mighty Experiment : Free Labor versus Slavery in British Emancipation*. Oxford University Press.

Drescher S. (2010) *Abolition: a history of slavery and antislavery*. Cambridge University Press, New York.

Dye , A. (1998): *Cuban Sugar in the Age of Mass Production: Technology, and the Economics of the Sugar Central, 1899-1929*. Stanford University Press.

Dye, A. (2006): “The Institutional Framework,” in Victor Bulmer-Thomas, John Coatsworth, and Roberto Cortés Conde, (eds.), *The Cambridge Economic History of Latin America*. Volume II: The Long Twentieth Century (Cambridge: Cambridge University Press, 2006).

Dobado, R. (2015) ‘Pre-independence Spanish Americans: poor, short and unequal.. or the opposite’ *Revista de Historia Económica, Journal of Iberian and Latin American Economic History*, 33 pp.15-59

Dobado, R. and Marrero, G. (2001) “Minería, crecimiento y costos de la independencia en México” *Revista de Historia Económica, Journal of Iberian and Latin American Economic History* vol. 19, no. 3, pp. 573–611.

Dobado, R. & García-Montero, H. (2014) . “Neither So Low nor So Short: Wages and Heights in Bourbon Spanish America from an International Comparative Perspective”. *Journal of Latin American Studies* 2014 vol. 46 no. 2.

Durlauf, S.- Johnson, P. and Temple, J. (2005) ‘Growth econometrics’ in Aghion Philippe and Steven N. Durlauf (eds) *Handbook of economic growth* Amsterdam: Elsevier vol IA pp.555-677

Eisner, G. (1961): *Jamaica, 1830–1930. A Study in Economic Growth*. Manchester, U.K.: Manchester University Press.

Engerman, S. L. and K. Sokoloff, K. L. (1994), Factor Endowments: Institutions, and Differential Paths of Growth Among New World Economies: A View from Economic Historians of the United States, in Haber, S. (ed) *How Latin American Fell Behind*. Stanford University Press, pp.260-304.

Engerman, S. L. and Sokoloff, K. L 2002), Factor Endowments, Inequality, and Paths of Development Among New World Economics, NBER Working Paper w9259.

Engerman, S. L. and Sokoloff, K. L (2005), Colonialism, Inequality, and Long-Run Paths of Development”. NBER Working Paper w11057.

Engerman, L.S. and Sokoloff K.L (2011) *Economic Development in the Americas Since 1500: Endowments and Institutions*. Cambridge: Cambridge University Press.

Federico G. (2005) *Feeding the world. An economic history of agriculture, 1800-2000*. Princeton: Princeton University Press

Federico G. and Tena-Junguito, A. (2016) “World trade, 1800-1938: a new data-set” *EHES Working paper n.93*. http://www.ehes.org/EHES_93.pdf include excel data set: [Click here for the dataset](#).

Federico, G and Tena Junguito, A. (2017a). 'A tale of two globalizations: gains from trade and openness 1800-2010'. *Review of World economics, Volume 153, number 3* pp.601-626.

Federico, G. & Tena-Junguito, A. (forthcoming): “Lewis revisited: tropical polities competing on the world market 1830-1938”. *The Economic History Review. (Early view)*. WP version Universidad Carlos III de Madrid. Instituto Figuerola Working Papers in Economic History. WH 23305. <http://e-archivo.uc3m.es/bitstream/handle/10016/23305/wh1605.pdf?sequence=1>

Federico, G. & Tena-Junguito, A. (2017b): “World Population 1800-2010” mimeo.

Fogel, R.W. and Engerman, S. (1974): *Time on the Cross: The Economics of American Negro Slavery*, 2 volumes, New York, Harper and Row.

Fogel, R.W. and Engerman, S. (1989): *Without Consent or Contract: The Rise and Fall of American Slavery*, 2 volumes, New York, London, W.W.Norton.

Frank, Z. (2005) 'Wealth Holding in Southeastern Brazil, 1815–60,' *Hispanic American Historical Review*, 85: 2, pp. 242-246.

Gayer, A.- Rostow, W.W and -Schartz, A. (1953) *The growth and fluctuation of the British economy 1790-1850*, reprint Hassock: Harvester Press, 1976.

Gallo, A. & Newland, C. (2004): "Globalización y convergencia de precios en el Imperio Español 1660–1810," *Revista de Historia Económica. Journal of Iberian and Latin American Economic History*, vol. 22(03), pages 573-596, December.

Galloway, J.H.(1989): *The sugarcane industry: an historical geography from its origins to 1914*. Cambridge: Cambridge University Press.

Gayer, A.D., W.W. Rostow, and A.J. Schwartz (1953): *Microfilmed Supplement to Volumes I and II of The Growth and Fluctuation of the British Economy 1790-1850*. Oxford: Clarendon Press.

Gelman, J. (2009): "Crisis postcolonial en las economías sudamericanas? Los casos del Río de la Plata y Perú." En Llopis, E. and Carlos Marichal (eds.) *Latinoamérica y España 1800-1850. Un crecimiento económico nada excepcional*. Marcial Pons Historia y Instituto Mora, Madrid.

Gelman, J. (2011): "Dimensiones económicas de la independencia" in las independencias latinoamericanas y el gran sueño de la gran patria nuestra, MexicoDF.: Servicio de Relaciones exteriores de la Cancillería Mexicana.

Grafe, R. and Irigoin, M.A. (2006): "The Spanish Empire and Its Legacy: Fiscal Redistribution and Political Conflict in Colonial and Post-Colonial Spanish America," *Journal of Global History* 1, no. 2 (2006).

Grafe, R. and Irigoin, M.A.(2008) 'Bargaining for Absolutism. A Spanish path to nation state and empire building' *Hispanic American Historical Review*. (2) pp. 173-210.

Green, William, A (1991): *British Slave Emancipation. The Sugar Colonies and the Great Experiment 1830-1860*. Oxford University Press. Oxford 2nd ed

Haber, S. and Klein, H.. (1993). "Consecuencias Económicas de la Independencia Brasileña," chap. In Leandro Prados de la Escosura y Samuel Amaral, ed., *La Independencia Americana: Consecuencias Económicas*. Madrid.

Halperin Donghi, T. (2008/1969): *Historia contemporánea de América Latina*. Madrid. Alianza edit.

Herranz Loncan Alfonso and Jose Alejandro Peres-Cajias (2016) 'Tracing the reversal of fortune in the Americas: Bolivian GDP per capita since the mid-nineteenth century' *Cliometrica* 10 (2016) pp.99-128

Historical Statistics USA (2007): *Historical Statistics of the United States. Millenian Edition*. Cambridge University Press 2007.

Irigoin, A. (2003), "Macroeconomic Aspects of Spanish American Independence: The effects of fiscal and currency fragmentation", *Economic History and Institutions Series 09*, Working Paper 03-45, Universidad Carlos III de Madrid.

Irigoin, A. (2015) *Representation without taxation, taxation without consent. The legacy of Spanish colonialism in America. Economic History working papers*, 227/2015. The London School of Economics and Political Science, London, UK.

Klein, H. S. (1971). The Internal Slave Trade in Nineteenth-Century Brazil: A Study of Slave Importations into Rio de Janeiro in 1852. *The Hispanic American Historical Review*, 51 (4), pp.

Klein, H.S. and Engerman, S. L. (1985) The Transition from Slave to Free Labor: Notes on a Comparative Economic Model. In: M. M. Friginals, F. M. Pons and S. L. Engerman, Editors, *Between Slavery and Free labor : The Spanish Speaking Caribbean in the Nineteenth Century*, Baltimore,, pp 255-269.

Klein, H.S. (1986) *African Slavery in Latin America and the Caribbean*. New York, Oxford University Press.

Klein, H. S. (1990) 'The Supply of Mules to Central Brazil: The Sorocaba Market, 1825-1880,' *Agricultural History*, 64: 4 (Fall 1990), pp. 1-25.567-585.

Klein, H. S and Vidal Luna, F. (2010): *Slavery in Brazil* (Cambridge University Press, 2010).

Kuntz, S. and Tena-Junguito, A. (2017) "Mexico's Foreign Trade in a turbulent era (1821-1870): a reconstruction" (unpublished paper).

Lindert Peter H. and Jeffrey G. Williamson (2016) *Unequal gains. American growth and inequality since 1700* Princeton: Princeton University Press

Lindo-Fuentes, H. (1993): "Las consecuencias económicas de la Independencia en Centroamérica." in Prados de la Escosura y Samuel Amaral (eds). *La Independencia Americana consecuencias económicas*. Alianza Universidad, Madrid 1993.

Llopis, E. and Marichal, C. (ed) (2009) *Latinoamérica y España 1800-1850: Un crecimiento económico nada excepcional*. Madrid; Mexico, DF.; Marcial Pons, Ediciones de Historia; Instituto Mora.

Llorca-Jaña, M. (2012): *The British textile trade in South America in the nineteenth century*, Cambridge University Press, Cambridge.

Maddison A. (2004): *Growth and Interaction in the World Economy. The Roots of Modernity*. Publisher for the American Enterprise Institute. Washington D.C.

Maddison, A. (2014) : *The Maddison-Project Data Base*,
<http://www.ggdcd.net/maddison/maddison-project/data.htm>

Manigat Ch. S. (2006): "Migraciones laborales y formación del proletariado azucarero en el Caribe 1838-1920" en Horacio Crespo Coordinador. *El azúcar en América Latina y el Caribe. Cambio tecnológico, mercado mundial y economías azucareras, perspectiva histórica y problemas actuales*. Senado de la República. Mexico.

Marichal, C. (1989): *A Century of Debt Crisis in Latin America: From Independence to the Great Depression, 1820*, Princeton, NJ: Princeton University Press.

Marichal, C. (2001): "Una difícil transición fiscal : del régimen colonial al México independiente, 1750–1850", in Carlos Marichal and Daniela Marino (eds.), *De colonia a nación: impuestos y política en México, 1750–1860* (Mexico DF, 2001), pp. 19–58.

McCaa Robert (1993) 'The peopling of nineteenth-century Mexico: critical scrutiny of a censured century' in James Wilkie, Carlos Alberto Contreras and Christof Anders Weber (eds)

Statistical Abstract of Latin America vol 30 UCLA Latin American Center Publications Los Angeles pp.604-633.

Mitchell, B (1988): *British historical statistics* Cambridge: Cambridge University press.

Moohr, M. (1972): "The Economic Impact of Slave Emancipation in British Guiana, 1832-1852" *The Economic History Review*, vol. 25, No. 4 (Nov., 1972), pp. 588-607.

Moreno Fraginals, M. (1978) *El ingenio: Complejo económico social cubano del azúcar*, (Havana: Editorial de Ciencias Sociales, 1978).

Newland, C. (1998): "Exports and Terms of Trade in Argentina 1811-1870" *Bulletin of Latin American Research* Vol. 17, nº 3, pp.409-416.

North, D. C., Weingast, B.R and Summerhill, W. (2000) "Order, Disorder and Economic Change. Latin America versus North America." In *Governing for Prosperity*, edited by B. Bueno de Mesquita and H.L. Root. New Haven, 2000 pp. 17-58

Ocampo, J.A. (1983): *Colombia y la economía mundial 1830-1910*. Siglo XXI.

O'Rourke Kevin (2006) 'The worldwide economic impact of the French revolutionary and Napoleonic wars, 1792-1815' *Journal of global history* 1:123-149.

Prados de la Escosura, L. and Amaral, S. (1993) *La Independencia Americana consecuencias económicas*. Alianza Universidad, Madrid 1993.

Prados de la Escosura, L. (2006), "The economic consequences of independence", en V. Bulmer-Thomas, J.H. Coatsworth, and R. Cortés Conde (eds.), *Cambridge Economic History of Latin America* Cambridge: Cambridge University Press

Prados de la Escosura, L. (2007): When did Latin America Fall Behind? in Sebastian Edwards, Gerardo Esquivel and Graciela Marquez. *The Decline of Latin American Economies, Growth Institutions and Crises*. in National Bureau of Economic Research. Chicago, London.

Prados de la Escosura, L. (2009): "Lost Decades? Economic Performance in Post-Independence Latin America", *Journal of Latin American Studies* 41, 2 (2009), pp. 279-307.

Prados de la Escosura, L. (2012): "Output Per Head In Pre-Independence Africa: Quantitative Conjectures," *Economic History of Developing Regions*, vol. 27 (2), pages 1-36.

Razzaque, M., Osafa-Kwaako, P. and Grynberg, R. (2007) 'Long-run trend in the relative price: empirical estimation for individual commodities' in Roman Grynberg and Samantha Newton (eds) *Commodity prices and development*, Oxford: Oxford University Press 2007 pp. 35-67

Rector, J. L. (1986): "El impacto económico de la Independencia en America Latina: el caso de Chile" *Ediciones Historia*, Vol XX., pp.295-318.

Salazar, G. Pinto, J. (2002). *Historia contemporánea de Chile III. La economía: mercados empresarios y trabajadores*. LOM Ediciones.

Salvucci, R. (1991) The origins and progress of US-Mexican Trade 1825-1885 : "Hoc opus hic labor est" *Hispanic American Historical Review*, 71, nº 4.

Salvucci Richard (1997) 'Mexican national income in the era of independence 1800-1840' in S. Haber (ed.) *How Latin America fell behind*, Stanford University Press pp.216-242

Sánchez-Santiró (2009): "El desempeño de la economía mexicana tras la independencia, 1821-1870: Nuevas evidencias e interpretaciones" in Llopis, E. and Marichal, *Latinoamérica y España 1800-1850: Un crecimiento económico nada excepcional*. Madrid; Mexico, DF.; Marcial Pons, Ediciones de Historia; Instituto Mora.

Samper Mario and Fernando Radin Historical Statistics of coffee production and trade from 1700 to 1960 in William-Gervase Clarence-Smith and Steve Topik, eds *The Global Coffee Economy in Africa, Asia, and Latin America, 1500-1989*. New York: Cambridge University Press pp.411-459

Santamaria-Garcia, A. (2004): "Las islas españolas del azúcar (1760-1898). Grandes debates en perspectiva comparada y caribeña" *América Latina en la Historia Económica*, nº 15, 204, pp.149-176.

Sauerbeck Augustus (1886): 'Prices of Commodities and the Precious Metals 1846-1885' *Journal of the Statistical Society of London*, Vol. 49 pp. 581-648.

Schmidt-Nowara Christopher (2010) 'Emancipation' in Robert L. Paquette and Mark M. Smith (eds) *The Oxford handbook of the slavery in the Americas* Oxford University Press Oxford 2010 pp.578-597

Seminario Bruno (2015). *El desarrollo de la economía peruana en el era moderna* Universidad del Pacífico Lima

Stauffer, John (2010) 'Abolition and anti-slavery' in Robert L. Paquette and Mark M. Smith (eds) *The Oxford handbook of the slavery in the Americas* Oxford University Press Oxford 2010 pp. 556-577

Summerhill, William R. (2005): 'Big Social Savings in a Small Laggard Economy: Railroad-Led Growth in Brazil,' *The Journal of Economic History*, 65: 1 (Mar., 2005), pp. 74-75.

Summerhill, William R. (2006): 'The Development of Infrastructure,' in Victor Bulmer-Thomas, John Coatsworth and Roberto Cortes-Conde (eds.), *The Cambridge Economic History of Latin America: Volume 2, The Long Twentieth Century*, (Cambridge: Cambridge University Press, 2006), pp. 293-328.

Tena-Junguito, A. and Willebald H (2013): "On the accuracy of Argentinian Export Growth" *Economic History of Developing Regions*, vol. 2, 2013. PP. 28-68.

Tena-Junguito Antonio, Markus Lampe and Felipe Tamega-Fernandes (2012) 'How much trade liberalization was there in the world before and after Cobden-Chevalier?' *Journal of Economic History* 72: 708-740.

Tutino John (1986) *From insurrection to revolution in Mexico* Princeton: Princeton University Press

Tombolo Guilherme Alexandre (2013): 'O PIB brasileiro nos séculos XIX e XX: duzentos anos de ciclos econômicos', unpubl. Masters thesis, Universidade Federal do Paraná, 2013 (pp.48-50).

Zanetti, Oscar (1975): "El comercio exterior de la República Neocolonial", en La República Neocolonial, Anuario de estudios cubanos, T. 1, La Habana, Ed. Ciencias Sociales.

Williams, E. (1944): *Capitalism and Slavery*. Chapter Hill: University of North Carolina Press.

APPENDIX

Table 1

The Americas (by countries and groups) rates of growth of export and GDP per capita (estimated) (a)
1820-1870 (1913\$)

Label	Countries	Group	Number	Export pc	B.GDPpc	A.GDPpc
II	ARGENTINA	Iberian Independent	38	3,68	1,74	1,74
TWE	BAHAMAS	Tropical Western European	23	0,62	-0,10	0,59
TWE	BARBADOS	Tropical Western European	20	0,46	0,35	0,10
TWE	BERMUDA	Tropical Western European	35	3,23	2,51	0,41
II	BOLIVIA	Iberian Independent	40	4,43	2,75	0,91
OT	BRASIL	Other Tropical	32	2,02	0,72	0,72
TWE	BRITISH GUAYANA	Tropical Western European	36	3,26	1,53	0,88
TWE	BRITISH HONDURAS	Tropical Western European	1	-4,98	-2,94	-2,95
NA	CANADA	North America	24	0,76	0,45	0,04
II	CHILE	Iberian Independent	37	3,65	1,55	1,55
II	COLOMBIA	Iberian Independent	19	0,40	1,07	1,07
OT	COSTA RICA	Other Tropical	39	4,45	3,73	3,34
OT	CUBA	Other Tropical	33	2,77	2,05	2,05
TWE	DANISH VIRGIN ISLAND (b)	Tropical Western European	2	-3,54	-0,28	-0,28
OT	DOMINICAN REPUBLIC	Other Tropical	13	-1,05	-0,85	-0,16
TWE	DUTCH ANTILLES	Tropical Western European	30	1,94	1,55	0,33
TWE	DUTCH GUAYANA (Surinam)	Tropical Western European	6	-2,66	-1,33	-0,66
II	ECUADOR	Iberian Independent	34	3,00	2,27	0,41
OT	EL SALVADOR	Other Tropical	41	1,57	4,21	3,61
II	FALKLANDS	NonTropical European	15	-0,48	-0,22	-0,06
TWE	FRENCH GUAYANA	Tropical Western European	8	-1,97	-0,77	-0,66
TWE	GRANADA (Winward Island)	Tropical Western European	4	-3,03	-1,84	-0,59
TWE	GUADALUPE	Tropical Western European	17	-0,15	-0,09	-0,03
OT	GUATEMALA	Other Tropical	44	4,96	6,88	6,70
OT	HAITI	Tropical Western European	11	-1,60	-1,43	-0,22
OT	HONDURAS	Other Tropical	28	-1,44	1,22	1,14
TWE	JAMAICA	Tropical Western European	3	-3,53	-2,39	-0,64
TWE	LEWARD ISLANDS	Tropical Western European	21	0,50	0,34	0,12
TWE	MARTINIQUE	Tropical Western European	22	0,61	0,38	0,15
II	MEXICO	Iberian Independent	31	2,23	1,09	0,27
NA	NEW FOUNLAND	North America	7	-2,22	-0,54	-0,39
OT	NICARAGUA	Other Tropical	43	3,98	6,78	6,04
II	PARAGUAY	Iberian Independent	29	1,67	1,18	0,26
II	PERU	Iberian Independent	42	4,37	1,66	1,66
OT	PUERTO RICO	Other Tropical	14	-0,63	-0,42	-0,31
NA	St. PIERRE et MIQUELON	North America	9	-1,95	-0,08	-2,60
TWE	St.BARTHELEMI (b)	Tropical Western European	10	-1,64	-0,55	-0,55
TWE	St.LUCIA	Tropical Western European	12	-1,24	-0,82	-0,25
TWE	St.VICENTE	Tropical Western European	5	-2,89	-1,49	-0,70
TWE	TRINIDAD&TOBAGO	Tropical Western European	18	0,16	0,08	0,05
TWE	TURK & CAYCO ISLANDS	Tropical Western European	27	1,09	0,66	0,29
NA	UNITED STATES	North America	25	0,99	1,17	1,17

II	URUGUAY	Iberian Independent	16	-0,38	-0,08	-0,08
II	VENEZUELA	Iberian Independent	26	1,03	-0,23	-0,23
	Southern USA			-0,46		
	Nothern USA			1,61		
	Rest of the world			3,59		

Notes: "Export pc" Export per capita at constant prices (1913\$) sources see Federico-Tena (2016 b) and text.

"B.GDPpc": Baseline estimation of Export per capita at constant prices; "A.GDPpc" Alternative estimation of Export per capita at constant prices

(a) We compute the rate of change of the i-th series as $w = -\beta/\psi$, where β and ψ are coefficients from a regression (Razzaque et al 2007) $\Delta \ln W_t = \alpha + \beta \text{ TIME} + \psi \ln W_{t-1} + \phi \ln \Delta \ln W_{t-1} + u_t$.

APPENDIX

Table 2

Export and GDP per capita levels of the Americas at 1913 US \$

		Export per capita (1913 \$)			GDP Per capita (1913 \$)			GDP Per capita (1913 \$)		
					alternative estimate			baseline estimate		
Label	Countries	1821-25	1846-50	1866-70	1821-25	1846-50	1866-70	1821-25	1846-50	1866-70
II	ARGENTINA	8,2	14,4	30,7	112,6	118,8	135,1	124,6	159,6	237,0
TWE	BAHAMAS	33,5	25,8	14,1	126,7	119,0	107,3	134,8	108,2	77,1
TWE	BARBADOS	9,5	8,2	12,8	50,4	49,1	53,8	57,7	51,1	72,9
TWE	BERMUDA	11,3	7,0	17,9	81,3	76,9	87,8	66,4	44,1	91,9
II	BOLIVIA	1,1	3,4	9,4	16,5	18,8	24,8	15,0	34,0	56,6
OT	BRASIL	3,2	8,9	11,4	6,7	12,5	14,9	8,4	23,6	30,1
TWE	BRITISH GUAYANA	32,5	13,2	29,1	127,8	108,5	124,4	133,0	74,1	124,2
TWE	BRITISH HONDURAS	121,4	69,7	13,0	147,2	95,5	38,8	219,2	185,9	73,1
NA	CANADA	16,2	11,0	21,0	346,8	341,6	351,6	255,9	194,3	300,0
II	CHILE	1,6	5,7	11,2	17,4	21,4	26,9	16,3	43,3	64,6
II	COLOMBIA	3,3	2,6	4,4	24,7	23,9	25,8	33,4	32,5	40,4
OT	COSTA RICA	1,9	14,5	19,4	6,0	18,6	23,6	13,5	79,5	97,5
OT	CUBA	7,1	15,7	31,4	38,9	47,5	63,3	45,6	84,1	129,7
TWE	DANISH VIRGIN ISLAND	16,9	11,5	8,2	89,1	83,7	80,5	89,0	67,0	51,5
OT	DOMINICAN REPUBLIC	10,2	8,0	6,8	55,9	53,7	52,5	61,1	49,8	43,9
TWE	DUTCH ANTILLES	8,1	14,4	14,7	55,1	61,4	61,7	50,8	79,5	80,6
TWE	DUTCH GUAYANA (Surinam)	59,6	33,4	20,2	175,8	149,6	136,4	175,9	133,6	99,9
II	ECUADOR	0,8	1,7	3,2	12,1	12,9	14,4	11,8	21,2	32,9
OT	EL SALVADOR	1,7	2,4	6,2	9,9	10,6	14,4	12,4	17,2	40,4
II	FALKLANDS	88,0	80,2	81,2	249,9	242,1	243,2	301,3	296,3	296,8
TWE	FRENCH GUAYANA	32,1	89,0	37,7	142,6	199,5	148,2	129,9	197,4	141,6
TWE	GRANADA (Winward Island)	39,8	18,8	14,5	144,5	123,6	119,2	147,7	95,0	79,1
TWE	GUADALUPE	24,7	22,3	29,6	104,2	101,8	109,2	112,0	106,7	125,7
OT	GUATEMALA	0,1	0,7	1,7	0,4	1,1	2,0	0,9	5,4	12,2
OT	HAITI	9,6	10,6	9,1	53,5	54,5	53,0	58,3	63,0	56,1
OT	HONDURAS	4,6	5,2	6,6	15,6	16,1	17,5	31,2	34,6	42,7
TWE	JAMAICA	27,3	17,9	10,8	110,1	100,6	93,6	120,4	92,2	64,2
TWE	LEWARD ISLANDS	11,2	25,2	27,4	62,6	76,6	78,7	66,0	113,7	120,4
TWE	MARTINIQUE	16,6	12,5	19,3	84,8	80,8	87,6	87,5	70,9	96,8
II	MEXICO	2,1	2,1	4,9	30,4	30,4	33,2	24,8	24,5	42,5
NA	NEW FOUNLAND	164,9	107,4	55,3	616,0	558,5	506,4	603,2	560,2	467,1
OT	NICARAGUA	0,4	1,5	2,7	2,1	3,2	4,4	2,9	11,2	19,0
II	PARAGUAY	1,4	2,0	3,3	15,3	15,9	17,2	18,6	23,9	33,8
II	PERU	1,2	4,8	9,8	34,0	37,6	42,6	15,7	42,0	57,5
OT	PUERTO RICO	5,4	17,5	16,6	28,5	40,6	39,7	35,9	91,1	88,0
NA	St. PIERRE et MIQUELON	989,8	919,1	560,2	835,1	764,4	405,5	688,2	685,3	674,1
TWE	St.BARTHELEMI	5,9	6,5	3,1	37,8	38,4	35,0	39,1	42,2	21,8
TWE	St.LUCIA	20,4	14,4	15,6	95,7	89,7	90,9	100,9	77,8	83,6
TWE	St.VICENTE	58,0	35,5	23,5	173,3	150,8	138,8	174,3	139,2	110,3
TWE	TRINIDAD&TOBAGO	25,1	20,6	32,2	111,0	106,5	118,1	114,8	100,4	132,1
TWE	TURK & CAYCO ISLANDS	21,1	14,4	21,5	94,0	87,3	94,3	103,0	75,5	101,1
NA	UNITED STATES	5,5	9,3	9,0	110,5	114,3	114,0	114,8	174,6	170,9
II	URUGUAY	38,7	73,5	44,3	245,3	280,1	250,9	252,6	293,3	263,3
II	VENEZUELA	2,5	3,2	3,1	12,5	13,2	13,1	15,1	17,7	17,0

Sources: for Export data estimation see Federico-Tena (2016). Baseline and Alternative GDP estimation in the text